REMARKS/ARGUMENTS

Claims 1 - 14 are in the application and are presented for examination. Claims 1-8 were previously presented for examination, and Claims 9 - 14 are newly submitted.

In the outstanding, second, but non-final, Office Action, the Examiner stated that Applicant's arguments in the Amendment filed July 17, 2006 were convincing and all of the previous objections and rejections have been withdrawn. However, the Examiner rejected all of the claims then present in the case, Claims 1-8, under 35 USC §112, Second Paragraph as being indefinite; and rejected all of the claims as being obvious over a combination of the Applicant's Admitted Prior Art (AAPA) in combination with the newly cited U.S. Robertazzi et al. patent No. 6,370,560 ("Robertazzi"). No claim stands allowed or allowable.

By this Amendment, Claims 1 and 5 have been amended to obviate their rejections as being indefinite for failing to establish the relationship between the steps and elements. Claims 2 and 3 have been amended to change the paragraph indicators so as to conform from the changes in Claim 1, from which they depend. In addition, for clarity, the computer manager element claimed in Claim 6, has been added to Claim 5. Claim 5 has also been amended to provide antecedent basis for "bottom node" in Claim 8. Finally, a minor change has been made in Claim 6, which depends upon Claim 5, because of the amendments made to Claim 5. It is submitted that support for all of these changes is located in the original application at least in Fig.

3 and its description in paragraph 19 of the published application, the Summary of the Invention and the original claims.

Also, by this Amendment, independent Claim 9 and claims 11-14 have been added. Support for the limitations in Claim 9 can be found at least in the Summary of the Invention, paragraph 8 of the published application, and the original claims. Support for Claim 10 is found in the Summary of the Invention and original Claim 1. Claims 11, 13 and 14 find support in correspondently similar original Claims 4, 3, and 4. Support for Claim 12 is found in paragraph 22 of the published application.

It is submitted that no new "matter" within the meaning of 35 USC § 132. has been entered into the application by these amendments to the claims.

I. REJECTION OF ALL CLAIMS UNDER §112, SECOND PARAGRAPH AS BEING INDEFINITE

The Examiner rejected all claims under 35 USC § 112, Second Paragraph as being indefinite. The Examiner wrote:

> (1) In claim 1, it's not clear the relationship between steps (a) to steps (b) or (c)? There are no discussion with respect to "the database" and "time series of observations" in steps (b) or (c)? In a method claim, the steps must show relationship between the steps in order to achieve the scope of the claimed invention. Otherwise, the isolated step or unrelated step may not receive any patentable weight.

(2) Similarly, claim 5,which has similar limitation as in claim 1 above, is rejected for the same reason set forth above.

(3) Claim 3 is vague and indefinite and it's not clear how this claim further limits claim 2 above. Similarly, Claim 7 which has similar limitation as in claim 3 above, is rejected for the same reason set forth above.

Response

Claims 1 and 5 have been amended to recite a clear relationship between the step and elements. Thus, for example, in Claim 1, there is a newly added step (c) that claims that the demand forecast information is computed from the observations that are stored in the database is used by one of the computer servers; and similarly, in step (d), the same connection is made for the second computer server. It is noted that the criticized "capable of" language in original Claims 1 and 5 remains in amended Claims 1 and 5, but now the claims recite that the particular computer server uses that capability by computing the demand forecast information for an entire branch.

However, the rejections of Claims 3 and 7 as not further limiting corresponding Claims 2 and 6 is expressly traversed. For example, Claim 2 merely claims the step of allocating each branch to a task. However, in Claim 3 claims a particular method of determining the number of tasks. This limitation of Claim 3 is not present in Claim 2 and thus it is submitted that Claim 3 is indeed narrower than Claim 2. A similar argument applies to Claims 7 and 6.

Accordingly, it is submitted that the rejections of the claims under Section 112, Second Paragraph have been obviated, and reconsideration of these rejections is requested with a determination that as now amended, Claims 1 - 8 all comply with the requirements of Section 112, Second Paragraph.

II. REJECTION OF THE CLAIMS UNDER THE PRIOR ART

In paragraphs 6 and 7 of the Office Action, the Examiner rejected all of the claims as being obvious in view of the combination of the AAPA and Robertazzi. After noting that "the phrase 'capable of ....' carries no-patentable weight since this merely means 'having potential of' or 'having the capacity of', and in a claim language no weight is given until the element or system is actually doing something with the capacity or capability, for example, computing a demand forecast information," the Examiner wrote:

> In a similar computer-implemented method for load (computing) sharing controller for optimizing resource utilization cost, ROBERTAZZI et al fairly teaches the breaking up the large group of tasks (tree or load) into multiple tasks (branches) for independent concurrent processing (computing or programming) among independent computer processors (servers) in order to complete the computations in a shorter period of time. [citations omitted.] It would have been obvious to modify the teachings of AAPA by breaking the overall jobs into discrete multiple tasks for independent concurrent processing using at least 2 computer servers (processors) in order to reduce computing time (or faster solution time, see col. 1, line 36-37) as taught by ROBERTAZZI et al above.

Response

These rejections are expressly traversed for the reasons stated below, and reconsideration of them is respectfully requested.

The present invention as originally and presently claimed is directed to the allocation of available computer equipment. In particular, the present invention is directed to the assignment of available computer resources to the calculation of conventional demand forecasting in that area of forecast applications that can be defined as being able to be represented by a "demand forecast tree." See present specification at paragraph 2.

As explained in the present specification, for example in paragraph 8, the present invention is based on a realization that a conventional demand forecast tree that has a top, central top level node (00) and a number of branches can be broken down into a plurality of individual trees where a given tree is represented by a branch. The present invention then determines what the computer availability (i.e. the number of servers that are available) and divides up the computing of the conventional demand forecasting among the available number of servers. See paragraph 22 for a specific example. In the case where there are 5 branches, as depicted in FIG. 1, but only 3 available servers, the present invention equalizes (in one specific embodiment) the calculating task by allocating an equal number of bottom nodes to each server. See the allocation depicted in FIG. 6 where there are four bottom nodes assigned to each of two of the three servers

and the remainder of three bottom nodes are assigned to the third server.

The standard of patentability in obviousness rejections under 35 USC §103 is applied by first determining the scope and content of the prior art; then ascertaining the differences between the prior art and the claims considering the claimed invention as a whole; then resolving the level of ordinary skill in the pertinent art; and finally evaluating any evidence of secondary considerations. Graham v. John Deere Co., 383 US 1, 148 USPQ 459 (1966).

To establish a *prima facie* case of obviousness, the Examiner must establish: (1) that some suggestion or motivation to modify the references exists; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all the claim limitations. Amgen, Inc. v. Chugai Pharm. Co., 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970).

A *prima facie* case of obviousness must also include a showing of the reasons why it would be obvious to modify the references to produce the present invention. See Ex parte Clapp, 277 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). The Examiner bears the initial burden to provide some convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings. Id. at 974.

Applicants respectfully traverse the rejections because all three prongs for a *prima facie* case of obviousness have not been established for each of the rejections. Specifically, there is no teaching in the AAPA of using plural, simultaneously operated computer servers to do partial calculations, and there is no teaching in the Robertazzi patent to have a particular computer server to use its capability to compute demand forecast information for at least an entire branch.

In particular, the Examiner combined the AAPA with the Robertazzi patent. Applicants agree with the Examiner that the AAPA is directed to a computer implemented approach for computing demand forecast information for a demand forecast application that utilizes a "demand forecast tree." Applicants also agree that the AAPA discloses a database for storing time series of observations. However, the AAPA does not disclose a method using at least two computer servers and the AAPA does not disclose that each computer server must be capable of computing demand forecast information for an entire branch of the demand forecast tree, let alone disclose using that capability to actually computer the demand forecast information for an entire branch.

The Robertazzi patent discloses a load sharing system that minimizes overall costs by assigning segments of a divisible load to distributed processor platforms. This is standard parallel processing techniques. This patent discloses the use of parallel processing of a divisible load such as data representing an input waveform that is to be applied to a series of digital filters

to identify the waveform. The allocation of the divisible load is based on their resource utilization costs. (Col. 2, lines 52-54). These resource utilization costs can be based on such factors as the supply and demand of the processor platform or the operational costs of the processor itself and the platform upon which it runs.

However, the Robertazzi patent does not disclose each of the claimed elements or steps, nor does it disclose the claimed elements and steps not disclosed by AAPA. For example, the use of parallel processing to operate on a demand forecast tree having a single top level node, and dividing the data load based on branches (Claims 1, 5 and 9). The patent discloses concurrent processing, but not simultaneous processing (Claims 1, 5 and 10). The patent also does not disclose the assigning of computers such that the tasks are assigned to each computer such that all computers operate on substantially equal amount of bottom level nodes (Claims 4, 8 and 14.

It is submitted that the patentability of the present claims not a question of whether two references can be combined which in their totality show all of the claimed elements or steps. In the present case, as set forth above, there are numerous claimed elements and steps simply not disclosed at all.

The above submitions are contrary to the statements of the Examiner in the Office Action. For, example, the Examiner states that dependent claims 2 and 3 are well known allocation

parameters taught in the Robertazzi patent. However, the cited sections of the reference do not disclose an allocation of a branch of a forecast tree, but rather discloses a load divisible by segments of an input wave. On the other hand, the present invention is directed to dividing up a forecast tree into its branches and then allocating the computing among two or more computer servers where each server is computing the information for at least an entire branch. This is not disclosed in the Robertazzi patent.

Accordingly, it is submitted that all of the claims currently in the application are patentable over the cited and applied references.

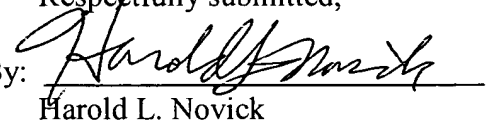
VII. CONCLUSION

For the foregoing reasons, all of the objections and rejections of the present application have been either obviated or traversed. Accordingly it is submitted that the present application is in condition for allowance, and such action is respectfully requested.

If an Extension of Time under 37 CFR § 1.136 is required and has not been separately requested herein, please consider this Transmittal Letter as including a request for such Extension of Time and as a further authorization to charge any fee for such Extension of Time, as may be required by 37 CFR § 1.17, to Deposit Account No. 14-0112.

Please charge any fee deficiency, or credit any overpayment, in connection with this matter to Deposit Account No. 14-0112.

Respectfully submitted,

By: 

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